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ABSTRACT

First-borns who were only children (onlies) and first-borns who had a sibling were compared on measures of intelligence from late adolescence at 18 years of age to late middle age at 60. The sample was composed of 38 female and 33 male first-born subjects from one- and two-child families. Wechsler Bellevue Intelligence Scale scores at late adolescence, middle age, and late middle age were available for all subjects. Findings indicate that effects were greater for females than for males. First-born females with a sibling score significantly higher on the Wechsler Bellevue scales than females without a sibling. Major differences appeared on the Verbal Subscales, the Verbal IQ, and the Full Scale IQ. For males, differences appear primarily on performance subscales. For females, the association of sibling presence with higher scores on the Wechsler Bellevue is strongest at late adolescence and late middle adulthood, though this difference is consistent over the life span. For males, the modest differences do not favor one time period in the life span. Results appear to confirm the disadvantaged status of the only child as contrasted with the first-born subject with a sibling on measures of intelligence. This disadvantage persists throughout the life span. Single parenting, significantly higher in onlies, appears not to be crucial. (RH)

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The Only Child: Sibling Presence-Absence or Single Parent Effects?

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Introduction

Though interest in the nature of the only child has been with us for quite some time (his/her qualities, the socialization practices that presumably contribute to such outcomes, the impact on the parent of one-childness), only recently in the last decade or two has there been a sense of urgency about acquiring more knowledge. Much of the impetus derives from the mandating of the one-child family in China (Tao & Chiu, 1985), the most populous country in the world. In addition, one-child families will increase in the U.S. for the remainder of this century (Westoff, 1978). Thus, the questions regarding the only child are not only theoretically interesting, but of some urgent practical significance.

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Systematic studies comparing first-borns with and without siblings (onlies) on emotional, intellectual, and social variables have generally cast a negative aura on the status of the only child (Blake, 1981; Thompson, 1974; Rosenberg & Leino, 1987), and 80% of white Americans think of the only child as disadvantaged. Thompson (1974) summarizes the prevailing view of the only child as "generally maladjusted, self-centered, self-willed, attention-seeking, dependent on others, temperamental, anxious, generally unhappy, and unlikable, yet somewhat more autonomous than a child with two siblings." On the other hand, sibling-presence is associated with more desirable personality and interpersonal characteristics (Falbo, 1982). In addition, relatively little is known of the persistence of such qualities over the life span.

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Recent research has tended to emphasize the positive aspects of being an only child (Falbo & Cooper, 1980; Blake, 1981). Three large-scale studies comparing the intelligence of only and non-only children consistently place only children at levels comparable to first-borns from three- and five-child families (Belmont & Marolla, 1973; Breland, 1974; Claudy, 1984). Falbo and Polit's (1986) meta-analysis of studies comparing the intelligence of onlies and non-onlies concluded that "growing up without a sibling is an advantage" (p. 180), and "across the areas of achievement and intelligence, only-borns were not reliably different from first-borns" (p. 183).

The Study

This study undertook the longitudinal comparison of first-borns with and without siblings (onlies) on measures of intelligence from late adolescence (18 years) to late middle age (60 years). The sample was composed of 38 female and 33 male first-born subjects from one- and two-child families drawn from the Intergenerational Studies (IGS) at the Institute of Human Development (IHD), University of California at Berkeley. This study was originally composed of three longitudinal studies, Oakland Growth, Berkeley Guidance, and Berkeley Growth, undertaken from 1925 to 1932 involving detailed measurement over 7 time periods of personality, cognition, physical health, adjustment, social behavior, and physiological status (for a more detailed description, see Eichorn, 1981). For purposes of the present study, those subjects were drawn for whom we had Wechsler Bellevue Intelligence Scale scores at late adolescence, middle age, and late middle age.

Results

From Tables 1 and 2 it is clear that when we compare first-borns with and without a sibling, the effects are greater for females than males (e.g., 10 significant differences between onlies and first-borns at late adolescence, 4 for

males). First-born females with a sibling score significantly higher on the Wechsler Bellevue scales than only females. Major differences appear on the Verbal subscales, the Verbal IQ, and the Full Scale IQ, whereas for males, when differences do obtain, they appear primarily on the performance subscales. For females, the association of sibling presence with higher scores on the Wechsler Bellevue is strongest at late adolescence and late middle adulthood, though this difference is consistent over the life span. For males the modest differences do not really favor one time period in the life span.

Falbo and Polit's (1986) conclusion that there are no significant differences between onlies and first-borns is not reflected in our results. In addition, in the attempt to explain any only, non-only differences from her extensive studies, Falbo (1982) proposed that sibling absence/presence contributed little to these differences, arguing that the discrepancy is due to the higher incidence of marital disruption (one-parent homes) for onlies. She compared onlies with first-borns in intact families and concluded that the differences vanish. We also found the incidence of one-parent homes was higher in our only families. Nevertheless, when our comparisons embrace only intact families, we continue to find the only-first-born differences cited earlier.

Conclusions

Results of the present study appear to confirm the disadvantaged status of the only child as contrasted with the first-born subject with a sibling on measures of intelligence. This disadvantage persists across the life span. Sibling presence is associated with significantly higher performance on measures of intelligence, while single parenting, significantly higher in onlies, appears not to be crucial. Differences in only and non-only subjects are far greater for females than males.

The consistent differences on intelligence favoring first-borns with a sibling over first-borns without a sibling (onlies) is a provocative outcome pressing for

explanation. Certainly, different modes of parenting and different developmental patterns are well within the realm of what we know regarding children of one- and two-child families (Rosenberg & Sutton-Smith, 1964, 1969). And much evidence seems to support Dunn's (1983) suggestion that siblings create different environments for one another.

From another perspective, an only's environment may be seen as stable and constant as contrasted with that of the first-born whose environment is radically altered with the appearance of a younger sibling. The latter presents divided resources (the parents) which, albeit prematurely, promotes early identification with adult values and facilitates early development of coping mechanisms, a factor which conceivably acts to accelerate subsequent social and intellectual development.

Zajonc and Markus (1975) has suggested that these differences might be accounted for by the teaching functions of the older sibling (i.e., the first-born). This implies surrogation, too. Thus, in a way, first-borns presented with the arrival of a sibling are forced to "grow up" intellectually, manifesting early identification with adult values, inhibition of "babyness" (i.e., emotionality), and learning to value rationality or cognition, as in the adult culture. If space and time were available, one might argue that these differences find their origins in primogeniture and stratified vs. eqalitarian modes of thinking and perceiving.

The fact that sibling presence-absence with first-borns on intelligence are more pronounced for females than males poses another interesting question, one partly imbedded in the prior efforts to explain our results. For females, early acceleration in linguistic and intellectual development probably favors early and repeated emphasis on instruction, surrogation, and intellectual precocity when a second-born appears. That is, differential socialization practices for the sexes may have real explanatory power here. As is known, girls tend to greater proximity to

and identification with a stable role model (the mother). They probably are thus the verbal recipients of differing parental instruction, to which they are more likely to respond than males because of said proximity and precocity. Indeed, they probably are capable of affording nurture and guidance to the younger sibling more readily than the first-born male, which argues for a higher level of cognitive development. Finally, identification with the mother also leads to advanced cognitive awareness and imitation.

One last note. If the present results can be generalized, first-born males are less affected by sibling presence-absence than females. This result may be read as confirmation of Falbo and Polit's conclusion that failure to find significant differences between onlies and first-borns justifies collapsing across the first-born category whether or not a sibling is present.

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Table 1

Wechsler Bellevue Scores for Only and First Born Females at Three Time Periods

		Senior High School			Adult 2			Adult 3		
		Onlies (N=15)	FirstBorns (N=13)	P	Onlies (N=24)	FirstBorns (N=23)	P	Onlies (N=20)	FirstBorns (N=21)	P
1	Information	10.60	11.92	.004	12.42	14.13	.007	10.90	12.38	.02
2	Digit Span	11.20	12.77	.10	14.54	15.26	.37	9.80	11.48	.02
3	Vocabulary	9.20	11.08	.07	11.50	12.30	.27	12.90	14.24	.06
4	Arithmetic	11.33	13.46	.01	13.13	13.83	.19	10.35	10.71	.62
5	Comprehension	9.47	13.69	.0005	11.50	12.57	.23	12.80	13.91	.15
6	Similarities	10.26	12.62	.04	13.29	14.83	.01	11.85	11.95	.87
7	Verbal Score	62.27	75.69	.0004	76.38	82.91	.02	68.60	74.67	.04
8	Picture Completion	13.33	12.62	.33	12.67	11.70	.20	10.50	11.10	.48
9	Picture Arrangement	12.06	12.54	.58	11.96	12.43	.41	10.55	12.05	.04
10	Block Design	13.27	14.31	.23	12.56	12.57	.94	10.40	11.50	.17
11	Object Assembly	11.27	12.31	.18	11.04	11.74	.34	10.23	11.71	.14
12	Digit Symbol	12.67	12.31	.96	12.04	12.61	.51	10.60	10.33	.75
13	Performance Score	67.33	64.08	.52	60.21	61.04	.73	52.30	56.71	.12
14	Full Scale Score	124.53	139.92	.003	136.58	143.96	.11	120.90	131.38	.03
15	Verbal IQ	107.40	121.00	.0006	116.54	122.96	.02	111.95	118.81	.03
16	Performance IQ	115.47	118.23	.47	120.50	121.39	.75	116.40	122.05	.15
17	Full Scale IQ	112.93	122.92	.005	119.33	123.61	.08	115.15	122.48	.03

Table 2

Wechsler Bellevue Scores for Only and First Born Males at Three Time Periods

		Senior High School Onlies (N=4)	FirstBorns (N=15)	P	Adult 2 Onlies (N=16)	FirstBorns (N=29)	P	Adult 3 Onlies (N=15)	FirstBorns (N=24)	P
1	Information	12.40	12.07	.54	14.06	13.93	.83	13.00	12.88	.86
2	Digit Span	13.50	12.80	.31	13.06	15.45	.006	11.27	10.96	.68
3	Vocabulary	13.75	13.07	.70	13.06	13.79	.38	12.80	13.58	.37
4	Arithmetic	14.25	13.33	.23	12.69	13.93	.11	12.33	11.88	.51
5	Comprehension	11.00	10.67	.75	12.00	11.97	.97	12.87	13.63	.28
6	Similarities	12.00	12.33	.81	14.38	14.38	.99	11.47	12.63	.15
7	Verbal Score	77.50	74.47	.29	79.25	83.48	.21	73.80	75.54	.60
8	Picture Completion	11.00	12.00	.34	11.50	10.93	.33	11.33	10.75	.43
9	Picture Arrangement	10.50	12.60	.04	12.75	13.07	.60	10.87	11.33	.60
10	Block Design	14.25	13.73	.50	12.81	13.93	.16	10.20	11.42	.16
11	Object Assembly	11.50	12.13	.53	12.31	12.03	.72	9.20	9.71	.49
12	Digit Symbol	11.75	12.40	.10	11.38	12.00	.42	9.00	9.25	.71
13	Performance Score	59.00	63.07	.03	60.25	61.79	.65	50.60	52.46	.48
14	Full Scale Score	136.50	137.53	.79	140.00	145.28	.29	124.40	128.00	.50
15	Verbal IQ	123.00	119.73	.39	120.00	123.48	.30	118.06	119.71	.66
16	Performance IQ	110.50	116.67	.01	122.81	122.51	.92	114.67	116.42	.66
17	Full Scale IQ	120.25	121.33	.73	122.38	124.62	.47	118.87	120.25	.75